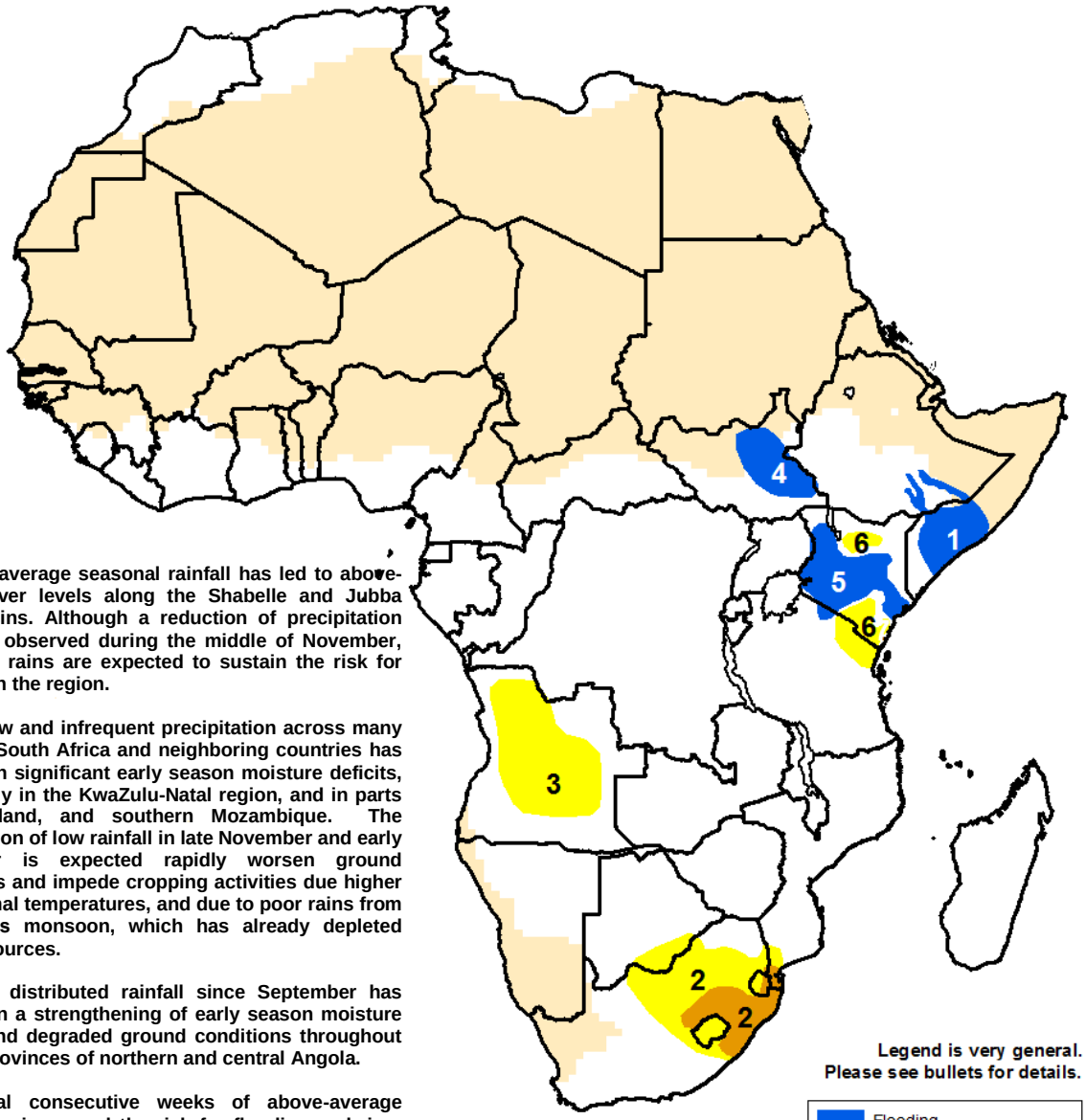
Climate Prediction Center's Africa Hazards Outlook
November 19 – November 25, 2015

- **Heavy precipitation triggers numerous floods across several provinces of Kenya.**
- **Suppressed seasonal rainfall continues to strengthen dryness throughout many regions in southern Africa.**



1) Above-average seasonal rainfall has led to above-normal river levels along the Shabelle and Jubba River basins. Although a reduction of precipitation has been observed during the middle of November, additional rains are expected to sustain the risk for flooding in the region.

2) Very low and infrequent precipitation across many states in South Africa and neighboring countries has resulted in significant early season moisture deficits, particularly in the KwaZulu-Natal region, and in parts of Swaziland, and southern Mozambique. The continuation of low rainfall in late November and early December is expected rapidly worsen ground conditions and impede cropping activities due higher than normal temperatures, and due to poor rains from last year's monsoon, which has already depleted water resources.

3) Poorly distributed rainfall since September has resulted in a strengthening of early season moisture deficits and degraded ground conditions throughout several provinces of northern and central Angola.

4) Several consecutive weeks of above-average rainfall has increased the risk for flooding and river inundation in the White Nile, Jonglei, and Eastern Equatorial provinces of South Sudan.

5) Significantly heavy rains within the last two weeks has resulted numerous floods, thousands of displaced people and fatalities throughout several provinces in Kenya. Flooding has been particularly severe along the Thanantu and Tana rivers.

6) Despite the recent increase in rainfall across Kenya, Poorly distributed rainfall since the beginning of October has resulted in pockets of strong seasonal moisture deficits throughout parts of central Kenya and northeastern Tanzania.

Seasonally heavy rains shift southward over Kenya, triggering additional floods in East Africa.

In the last seven days, torrential heavy rains continued across the Greater Horn of Africa, with much higher precipitation amounts shifter further south into many parts of Kenya and Tanzania. According to satellite data, locally heavy weekly rainfall accumulations (>75mm) were received across the Lake Victoria region of southwestern Kenya and northern Tanzania, as well as, throughout many pastoral regions of central and eastern Kenya (**Figure 1**). Throughout many provinces of Ethiopia and Somalia, a return to more seasonably moderate rainfall was observed during the middle of November which is expected to provide some relief for many saturated areas. Lighter rainfall totals were also received across many parts of South Sudan and central Tanzania.

Since the beginning of October, several regions in the Greater Horn of Africa have continued to experience well above average precipitation. By halfway through the season, the largest seasonal precipitation surpluses (>200mm) still remain over parts of eastern Ethiopia and Somalia due increased moisture, and transient tropical cyclone activity in the northwestern Indian Ocean (**Figure 2**). However, in recent weeks, a shift in the monsoon circulation has led to a southward migration of the heavier precipitation totals over many parts of southern South Sudan, Uganda, Kenya and Tanzania. As a result, many local areas in Kenya that had experienced an unfavorable distribution of rainfall during October, have recovered from their seasonal moisture deficits, but are now experiencing flooding, damages to infrastructure, displacement of populations, and fatalities due to the recent increase in seasonal rains. In eastern Kenya, flooding and river inundation along the Tana and Thanantu rivers basins have been reported.

For the upcoming outlook period, rainfall forecasts suggest another week of torrentially heavy rainfall of several parts of Kenya and Tanzania. The potential for significantly heavy rains is expected to elevate the risk for localized flooding, river inundation and other adverse ground impacts during late November.

Some relief to early season dryness forecast for parts of South Africa.

During the last week, poorly distributed and low rainfall totals were again observed throughout much of southern Africa, which has rapidly strengthened seasonal moisture deficits particularly in Angola and South Africa. In South Africa, many regions have experienced one of the poorest starts of the monsoon season in many years, with several local areas receiving less than half of the their normal rainfall accumulation since the beginning of October (**Figure 3**). The observed early season dryness has been compounded by infrequent rainfall, with prolonged dry spells lasting longer than >15 days, and higher than normal temperatures in the region which is expected to negatively impact cropping activities and reduce water availability.

However, precipitation forecasts suggest a much needed increase in rainfall with the highest amounts concentrated across the Kwa-Zulu Natal and Maize Triangle regions of South Africa during the next seven days. While the rainfall forecast is not expected to fully mitigate moisture deficits for crops, it is expected to help improve water availability and pastoral conditions.

Satellite-Estimated Rainfall (mm)
Valid: November 9 – November 15, 2015

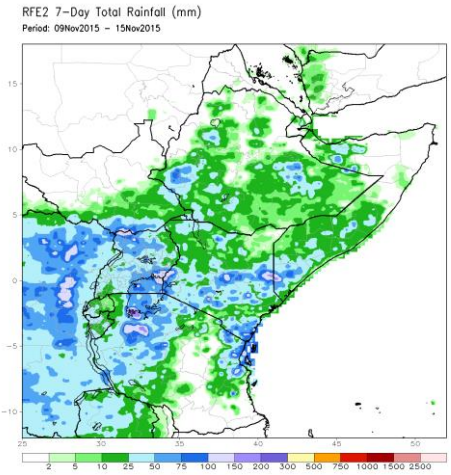


Figure 1: NOAA/CPC

Satellite-Estimated Precipitation Total Anomaly (mm)
Valid: October 01 – November 15, 2015

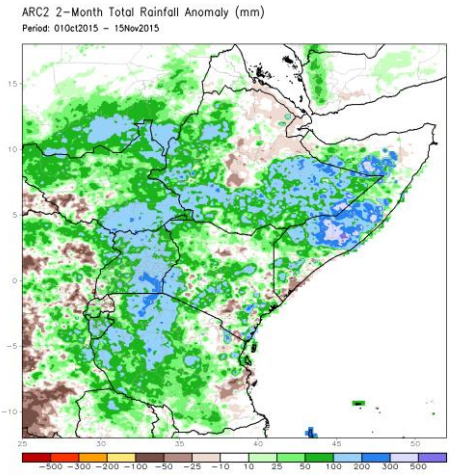


Figure 2: NOAA/CPC

Satellite-Estimated Percent of Normal Rainfall Anomaly (%)
Valid: October 1 – November 15, 2015

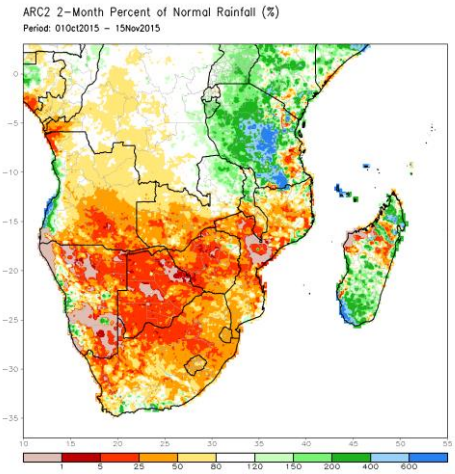


Figure 3: NOAA/CPC

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.

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